

The image shows a man in a checkered shirt working at a computer workstation. He is looking at two monitors displaying data from a FLATRON system. The left monitor shows a 'Measurement Report' with 'Logger results' and a line graph. The right monitor shows a 'Supervisor' interface with a line graph and a list of data points. In the foreground, there is a yellow hard hat and a microphone. The background shows a construction site with scaffolding.



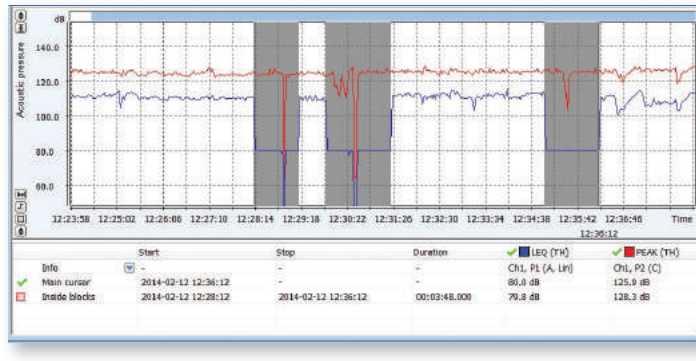
# Supervisor Software Data Management & Reporting

Supervisor is a software package for health and safety specialists. The package supports all Svantek instruments for the health and safety market.

The Supervisor is designed to meet the needs of different users. In the case of simple applications that only require the analysis of the main results such as LAeq, LAFmax and Lcpeak, the program offers quick previews and reporting without the necessity of opening data files. More advanced applications are handled within sessions where the user can choose the type of analysis to be performed. Those

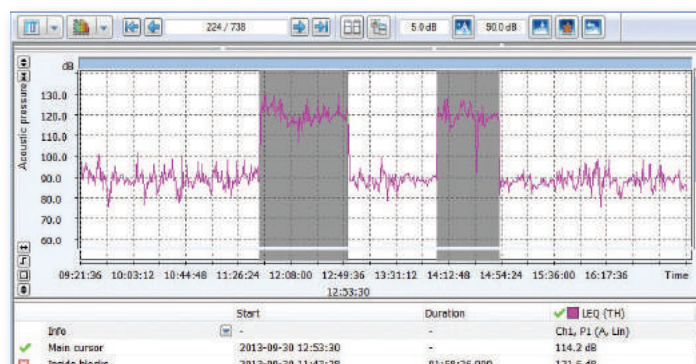
who draw up noise or vibration reports on a daily basis will appreciate the report templates, which once created can be applied to different sets of measurement files.

Each instrument that is connected to Supervisor is remembered together with information such as the uploaded settings, the firmware version, as well as the calibration validity date and instrument clock time. When data is downloaded, they are automatically categorised by measurement time and assigned to the instrument's serial number.



## Simulation of changes of noise source emission

The Supervisor software gives tools to simulate hypothetical situations in which the noise differs from that which was measured. When selecting a data block it is possible to shift the data up or down for any given dB value. It is also possible to simulate a situation where noise is equal to a given dB level or completely removed from time history. The altered data is recalculated automatically and both the original and recalculated results are shown so as to answer the question "What if".



What if			
LEQ time history source	File name	Channel	Profile
	PULL-DAY-SVL	Ch1	P1 - OSHA HC (A, Slow)
Apply longer deletions, shifts & dds		Yes	-
Parameters		Original value	New value
Threshold [dB]		80.0	80.0
Criterion level [dB]		90.0	90.0
Exchange rate		5	5
Projected time (h:mm)		08:00	08:00
Function name		Original value	Recalculated value
DOSE		80.5 %	80.5 %
DOSEh		80.5 %	80.5 %
ROSE		80.5 %	80.5 %
LAV		88.5 dB	88.5 dB
LEQ		90.7 dB	90.7 dB
SEL		125.3 dB	125.3 dB
TWA		86.5 dB	86.5 dB
PSEL		90.7 dB	90.7 dB
LEP		90.7 dB	90.7 dB
E		3.7 dB	3.7 dB
ESh		3.7 dB	3.7 dB

Hearing protectors (ISO 4869-2)		
Mode	Protectors database	Manage database
File	Channel	
T1-1	Ch1	
Protector	Protector	
[-] SNR method:		
L <sub>c</sub> [dB]	117.0	
SNR [dB]	40	
Current L <sub>A</sub> [dB]	77	Good
Compare protectors		
[-] HML method:		
L <sub>A</sub> [dB]	112.0	
L <sub>c</sub> [dB]	117.0	
H [dB]	30	
M [dB]	33	
L [dB]	35	
Current L <sub>A</sub> [dB]	78	Good
Compare protectors		

## Hearing protection selection in accordance with ISO 4869-2

Workers should wear hearing protectors if the noise or sound level at the workplace exceeds 85 decibels. The selection of hearing protectors depends on a noise level in the working environment. Therefore the selection of suitable hearing protector should be based on noise measurement. Each hearing protector has attenuation characteristics expressed in units of three methods:

**SNR** \_\_\_\_\_ Single Number Rating,

**HML** \_\_\_\_\_ High, Medium and Low frequency method, using A-weighted and C-weighted sound measurements in the calculation

**OCTAVES** \_\_\_\_\_ The most accurate method requiring measurement in 1/1 octave bands

The Supervisor supports all three methods allowing users to build up the hearing protectors data base. The calculation is done automatically with selection of data files containing noise results required by selected method.



## Supervisor Software Data Management & Reporting

## Hand-Arm Vibration Exposure Calculation in accordance with ISO 5349-2

ISO 5349-2 gives practical guidelines in accordance with ISO 5349-1 of how to take hand transmitted vibration measurements at the workplace. These kinds of measurements are possible with the SV 106 human vibration analyser or SV 103 hand-arm vibration dosimeter. The data downloaded into the Supervisor database are assigned either to a particular user or to a task while all calculations

are performed automatically. The measurements are recorded in m/s<sup>2</sup> and are directly comparable to the limits laid down by European Directive 2002/44/EC. It is also possible to convert these units into Points, which are widely used within the health & safety sector. All the information displayed within the panel window can be printed in the report.

User	Task	Exposure duration	RMS (X)	RMS (Y)	RMS (Z)	AEQ	Partial exposure	Time to reach EAV	Time to reach ELV
Zbychu	Drill	00:00	5.389	10.012	5.489	12.618	0.364	01:00	04:02
File name:	DRILL1 (Ch1-3)		5.662	12.274	5.929	14.757	0.426	00:13	00:55
File name:	DRILL2 (Ch1-3)		5.630	9.386	5.236	12.134	0.350	00:20	01:21
File name:	DRILL3 (Ch1-3)		4.831	7.852	5.272	10.617	0.307	00:26	01:46
Total duration:	00:00								
							Daily exposure		
						User	m/s^2		
						Zbychu	0.364		

## Whole-Body Vibration Exposure Calculation in accordance with ISO 2631-1

The ISO 2631-1 standard defines the general methodology to assess whole-body vibration exposure. These measurements can be performed with the SV 106 human vibration analyser or the SV 100A whole-body vibration dosimeter. The measurements downloaded into the Supervisor database are assigned either to a particular user or to a task while all calculations are performed automatically. The measurements are recorded in  $\text{m/s}^2$  and

are directly comparable to the limits laid down by European Directive 2002/44/EC.

It is also possible to convert these units into Points, which are widely used within the health & safety sector. By clicking on Mode, you can switch to calculations based on VDV which is often necessary when the vibration is characterized as impulsive.

Whole-Body vibration exposure (ISO 2631-1)

Add user

Add task

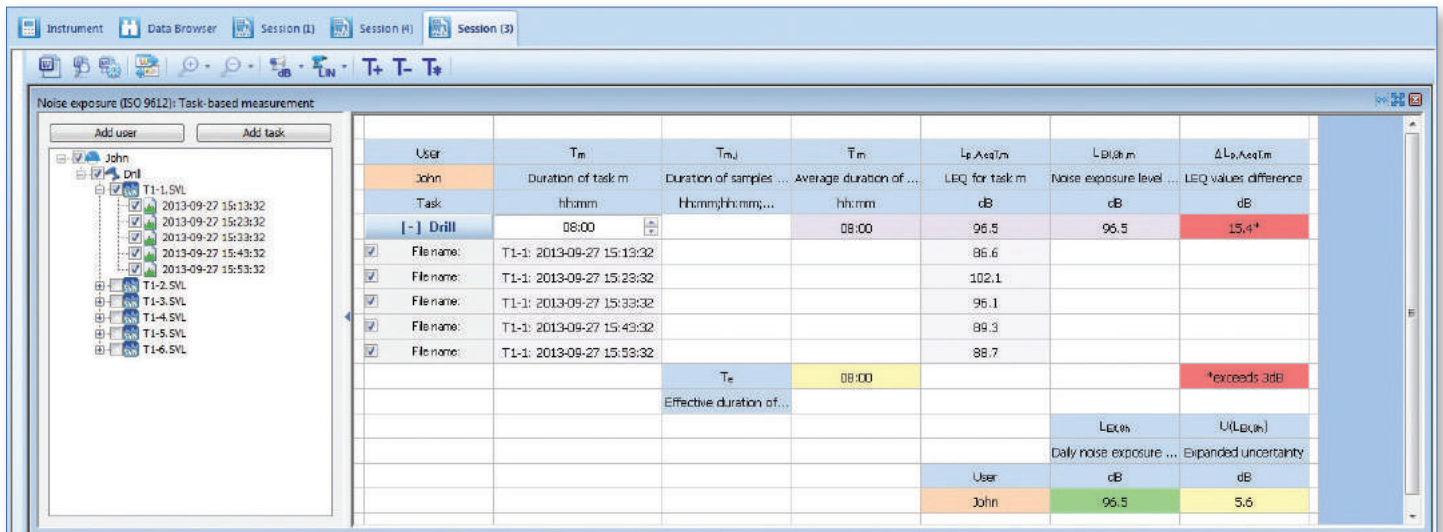
John

Car

Mode:	A[8] calculator																		
Show exposure:	levels																		
User																	Time to reach EAV	Time to reach ELV	
John	Exposure duration	RMS (X)	RMS (Y)	RMS (Z)	Partial exposure (X)	Partial exposure (Y)	Partial exposure (Z)										0.50 m/s <sup>2</sup> A(8)	1.15 m/s <sup>2</sup> A(8)	
Task	hh:mm	m/s <sup>2</sup>	m/s <sup>2</sup>	m/s <sup>2</sup>	m/s <sup>2</sup> A(8)	m/s <sup>2</sup> A(8)	m/s <sup>2</sup> A(8)										hh:mm	hh:mm	
[+] Car	04:00	0.079	0.065	0.237	0.078	0.064	0.167										>24:00	>24:00	
Total duration:	04:00				Total exposure (X)	Total exposure (Y)	Total exposure (Z)												
					m/s <sup>2</sup> A(8)	m/s <sup>2</sup> A(8)	m/s <sup>2</sup> A(8)												
					0.078	0.064	0.167												
						</													

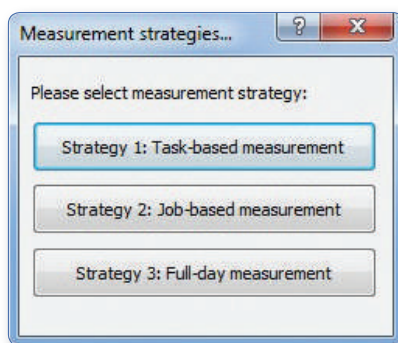
# Supervisor Software Data Management & Reporting

## Noise exposure recalculations in accordance with ISO 9612



The screenshot displays the 'Noise exposure (ISO 9612): Task-based measurement' window. On the left, a tree view shows a user 'John' with several tasks. The main table lists measurement data for a task named 'Drill'.

User	T <sub>m</sub>	T <sub>m,j</sub>	T <sub>m</sub>	L <sub>p, AeqTm</sub>	L <sub>p, AeqTm</sub>	ΔL <sub>p, AeqTm</sub>
John	Duration of task m	Duration of samples ...	Average duration of ...	LEQ for task m	Noise exposure level ...	LEQ values difference
Task	hh:mm	hh:mm;hh:mm;...	hh:mm	dB	dB	dB
[ - ] Drill	08:00		08:00	95.5	95.5	15.4*
File name:	T1-1: 2013-09-27 15:13:32			86.6		
File name:	T1-1: 2013-09-27 15:23:32			102.1		
File name:	T1-1: 2013-09-27 15:33:32			96.1		
File name:	T1-1: 2013-09-27 15:43:32			89.3		
File name:	T1-1: 2013-09-27 15:53:32			88.7		
	T <sub>e</sub>		08:00			*exceeds 3dB
	Effective duration of ...					
					L <sub>eq,h</sub>	L <sub>eq,h</sub> (h)
					Daily noise exposure ...	Expanded uncertainty
				User	dB	dB
				John	95.5	5.6



The Supervisor software provides complete tool for determination of occupational noise exposure from noise level measurements. The Supervisor provides automatic calculation of all required measurement results and uncertainties in accordance to three measurement strategies described in ISO 9612: task-based, job-based and full-day.

## Reporting: What You See is What You Get!

Supervisor creates reports\* in a very fast and easy way. The user selects a file and opens it by double click. The measurements are automatically grouped into context panels which can be opened and closed with a single click. The panels can be arranged with the drag & drop. Then you only need to click on the MS Word™ icon to print a report. The report layout can be saved at any time as a template and used for other files.

\*MS Word™ required

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